

# AI Planning

## Exercise Sheet 6

Date: dd.11.2014

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### Exercise 6.1

foo

### Exercise 6.2

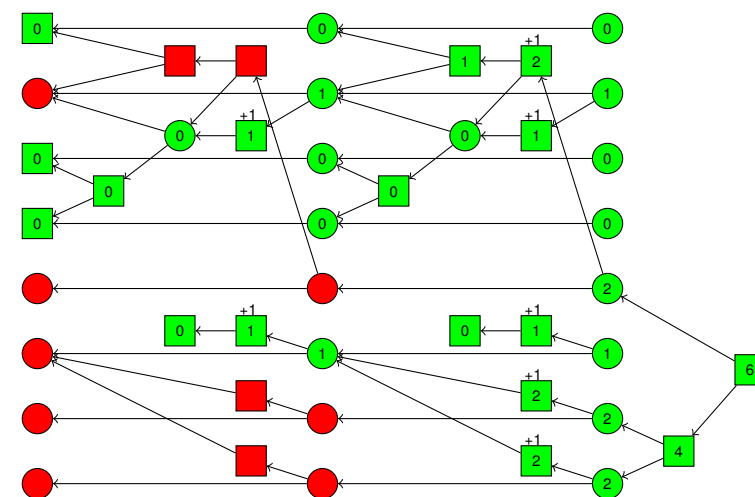
Example for an overestimation:

Figure 1: Over Estimation of  $h_{add}$

Incremental computation example:  $h_{add}$



Result for  $\{a \mapsto 1, b \mapsto 0, c \mapsto 1, d \mapsto 1, e \mapsto 0, f \mapsto 0, g \mapsto 0, h \mapsto 0\}$



Parallel plans  
Relaxed planning graphs  
Relaxation heuristics  
Generic template  
 $h_{max}$   
 $h_{add}$   
 $h_{sa}$   
Incremental computation  
 $h_{ff}$   
Comparison & practice  
Summary

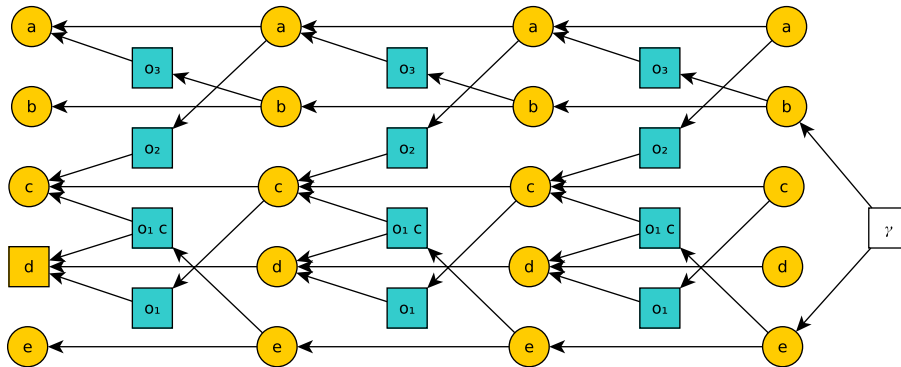
November 19th, 2014

B. Nebel, R. Mattmüller – AI Planning

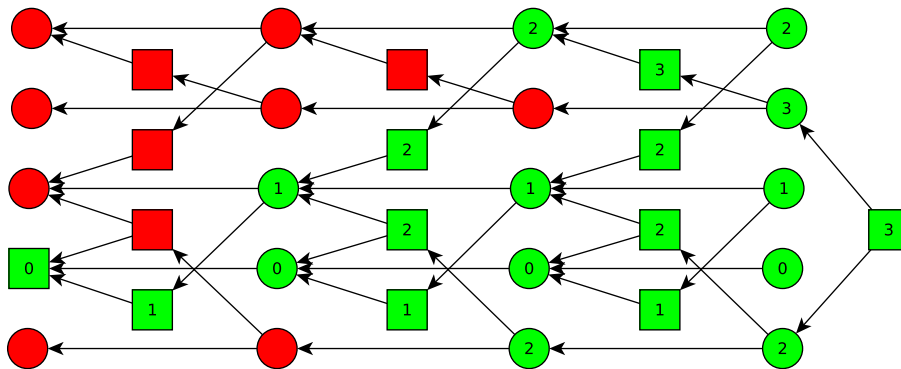
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### Exercise 6.3

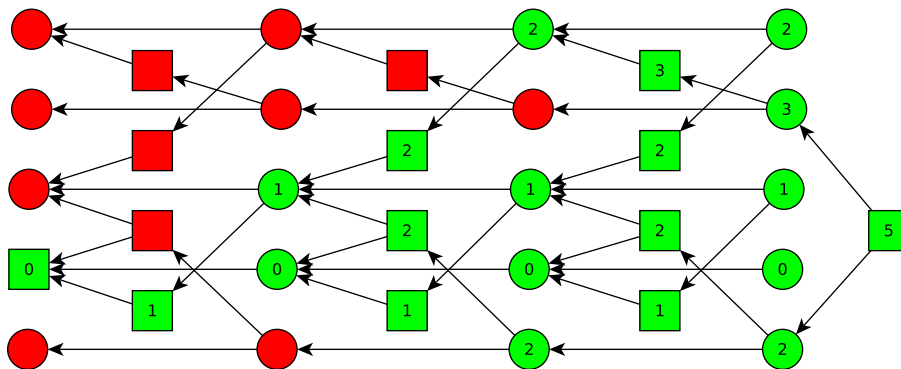
Relaxed planning graph with depth 3. (Sparse labeling due to technical restrictions.)



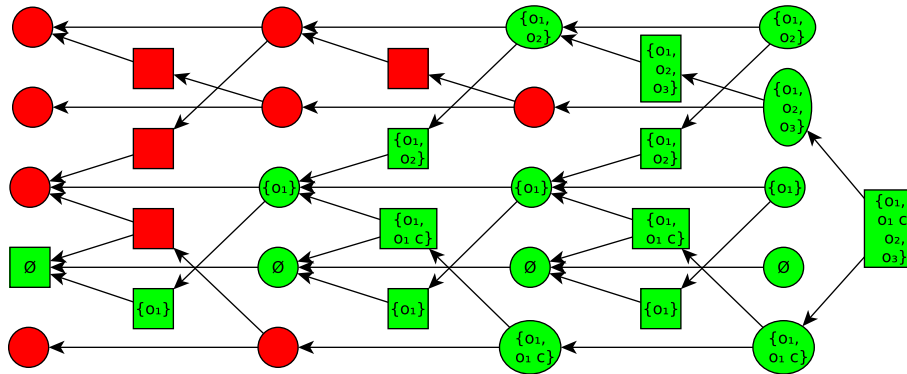
(a)  $h_{max}(s) = 3$



(b)  $h_{add}(s) = 5$



(c)  $h_{sa}(s) = 4$



(d)  $h_{FF}(s) = 4$

